

AMENDMENTS TO THE CLAIMS

Cancel claims 1-11 and 29-30 without prejudice:

1-11. (Cancelled)

12. (Previously Presented) A method for determining instructions for handling a flexible endoscope comprising the steps of:

parameterizing the flexible endoscope according to a plurality of parameters for handling the endoscope given a desired task;

determining, pre-operatively, at least one endoscope configuration of the parameters, based on a predetermined patient model; and

determining instructions for handling the endoscope according to the configuration.

13. (Original) The method of claim 12, further comprising determining a digital model of a flexible endoscope.

14. (Original) The method of claim 12, further comprising the step of registering a patient to the predetermined patient model.

15. (Original) The method of claim 12; further comprising the step of identifying a mutual landmark visible in a patient and in the predetermined patient model.

16. (Original) The method of claim 12, further comprising the step of determining a configuration relative to a landmark.

17. (Original) The method of claim 15, wherein the landmark is a carina of a tracheobronchial tree.

18. (Previously Presented) The method of claim 12, wherein the step of parameterizing further comprises determining an endoscope length parameter.

19. (Previously Presented) The method of claim 18, further comprising the steps of:

inserting the endoscope to a landmark; and

inserting the endoscope to a target site, wherein a distance to the target site from the landmark is a difference between a total distance from a reference point to the target site and an intermediate distance from the reference point to the landmark.

20. (Original) The method of claim 12, wherein the step of parameterizing further comprises the step of determining a shaft-rotation of the endoscope according to a landmark.

21. (Previously Presented) The method of claim 20, wherein determining a shaft-rotation comprises determining an angle between a bending plane of a tip of the endoscope and a target.

22. (Original) The method of claim 12, wherein the step of parameterizing further comprises the step of determining a bending angle of the endoscope.

23. (Previously Presented) The method of claim 22, wherein determining the bending angle comprises the steps of:

- approximating a bending movement by a semi-circle with a given center;
- determining a first vector between the center and a tip of the endoscope;
- determining a second vector between the center and a target; and
- determining the angle between the first vector and the second vector.

24. (Presently Presented) The method of claim 12, wherein parameterizing further comprises the steps of:

- determining a tool length, wherein the tool is coupled to a tip of the endoscope;
- and
- determining a distance between the tip of the endoscope and a target.

25. (Previously Presented) The method of claim 24, wherein determining the tool length comprises determining the distance between an aligned tip of the endoscope and a target.

26-30. (Cancelled)

31. (Presently Presented) The method of claim 12, wherein determining instructions for handling the endoscope according to the configuration are determined prior to inserting the flexible endoscope into a patient.